

sandy substrates, including dunes, over a broad geographic area from eastern Washington to Texas and northern Mexico. It has been recorded from numerous localities within 50 mi. of the Algodones Dunes, but never in actual sympatry with *E. fortineri*.

Coelus maritima has been recorded from scattered coastal localities in northern and central Baja California, but fewer than 30 specimens were known prior to 1972. During late March, 1972 and 1973, and mid-June, 1973, approximately 500 adults of *C. maritima* were collected by screening sand at the maritime dunes at Santa Maria Beach, San Quintin Bay, Baja California Norte. In March both adults and larvae were extremely abundant to depths of 3 cm in the sand canopied by perennial plants, especially *Abronia maritima* Nuttall ex Watson, where they were associated with small numbers of other tenebrionids *Cryptadius inflatus* LeConte, *Eusattus laevis* LeConte, *E. erosus* Horn, and *Micromes ovipennis* (Horn). In June only adults were encountered, many teneral, suggesting that adult emergence peaks in late spring or early summer.

The local abundance of *C. maritima* is probably conditioned by the characteristics of the sand in which it lives. The beach sand at San Quintin Bay is extremely fine and friable, allowing entry by small organisms such as *Coelus*. South of San Quintin, the dunes extend inland a distance of 3–4 miles, but the sand becomes progressively coarser and more consolidated inland. Collections away from the immediate coast contained no *Coelus*, but the larger species, *E. laevis* was present, and *Micromes* was abundant on the sand surface beneath plants. In extreme northern Baja California, *C. maritima* is replaced by *C. globosus* LeConte, which occurs in the same habitat. In extensive collections from dunes near Cantamar, 25 mi. S. Tijuana, *C. globosus* was very abundant, while *C. maritima* was absent, and the two species do not appear to occur sympatrically. JOHN T. DOYEN, *Division of Entomology and Parasitology, University of California, Berkeley 94720*.

Differential predation of darkling ground beetles (Coleoptera: Tenebrionidae) by the Channel Islands Fox.—During April, 1972, 73 scats of the Channel Islands Fox (*Urocyon littoralis*) were collected from the sand dunes near Wilson's Cove on the northwestern end of San Clemente Island, Los Angeles County, California. The diet of the fox is known to be extremely varied, including berries, acorns, and carrion, as well as living invertebrates and small vertebrates (von Blocker, 1967, *in* Philbrick, Proceedings of the Symposium on the Biology of the California Islands, pp. 245–253). All of these items were represented by the fragments recovered from the San Clemente scats, but insect remains were particularly abundant. What is of interest is the relative numbers of some of the beetle prey (Table 1). By far the most abundant were corpses of *Trigonoscuta* sp. (Curculionidae), June beetles (Scarabaeidae), and the tenebrionids *Coelus remotus* Fall and *Eusattus robustus* LeConte. All these species are relatively abundant on or about the sand dunes, but two of them (*Trigonoscuta* and *Coelus*) are relatively small bodied. Large numbers would be required to sustain an animal as large as a fox. The large tenebrionid *Eleodes laticollis* LeConte is also abundant at Wilson's Cove, but was rare in the scats. Three other small tenebrionids, *Apsena grossa* LeConte, *Coniontis latus* LeConte, and *Helops bachei* LeConte were also uncommon in the scats, though relatively abundant on or about the dunes. With

TABLE 1. Beetle contents of 73 scats of the Channel Islands fox. The left column of figures lists the numbers of scats containing each species. The right column lists total numbers found in all scats combined. Numbers of tenebrionids and of *Trigonoscuta* were estimated by counting prothoraces, which usually remained intact. Numbers of Scarabaeidae were estimated by counting elytra.

	# Scats	Total number of individuals
Tenebrionidae		
<i>Coelus remotus</i> Fall	23	196
<i>Coniontis latus</i> LeConte	1	1
<i>Eusattus robustus</i> LeConte	9	15
<i>Apsena grossa</i> LeConte	2	2
<i>Eleodes laticollis</i> LeConte	2	2
<i>Helops bachei</i> LeConte	3	3
Scarabaeidae (<i>Phobetus</i> and <i>Serica</i>)	17	49
Curculionidae (<i>Trigonoscuta</i>)	45	270

the exception of *Coniontis*, which was the least numerous of the beetles in the habitat, the tenebrionid species which were infrequently eaten possess quinonoid secretions which they release at the abdominal tip when disturbed. *Eleodes laticollis* is particularly well supplied with secretions, which are stored in large reservoirs in the abdomen and forcibly ejected as a fine spray which may travel over 30 cm. *Coelus*, *Coniontis*, and *Eusattus*, as well as the weevil and scarabs, lack secretions. Although quinonoid secretions of tenebrionids are popularly referred to as defensive secretions (Eisner and Blumberg, 1959, An. Rec., 134: 558-559), little evidence of differential predation is available. The data presented here suggest that species possessing secretions are ignored, at least when other food is present. Quantitative estimates of the population densities of the various species are unavailable, and nothing is known of the searching strategy of the fox. However, the differences in the numbers of individuals taken, especially between *Eleodes* and *Coelus*, are so marked that selective predation to avoid the beetles with defensive secretions seems likely.—JOHN T. DOYEN, *Division of Entomology and Parasitology, University of California, Berkeley 94720.*

A note on the Nesting Biology of *Dianthidium pudicum pudicum* (Cresson) (Hymenoptera: Megachilidae).—A nest of *Dianthidium pudicum pudicum* (Cresson) was discovered on 26 March, 1967, 9.3 miles south of Quartsite, Arizona. The nest contained 10 cells located about one meter off the ground in a forked branch of a creosote bush, *Larrea tridentata* Sesse & Mocino. The branch was in a horizontal position and about 6 mm in diameter at the nest location. The nest assumed the triangular shape of the branches (Fig. 1), with the sides 27-28 mm long. The dorsal surface extended 6 mm above the horizontal branches and the bottom extended 1-2 mm below the branches, averaging about 13 mm thick.

A dark brown resin, with a strong scent of *Larrea*, cemented numerous small pebbles together to form the outer surface of the nest. Internally, the resin became